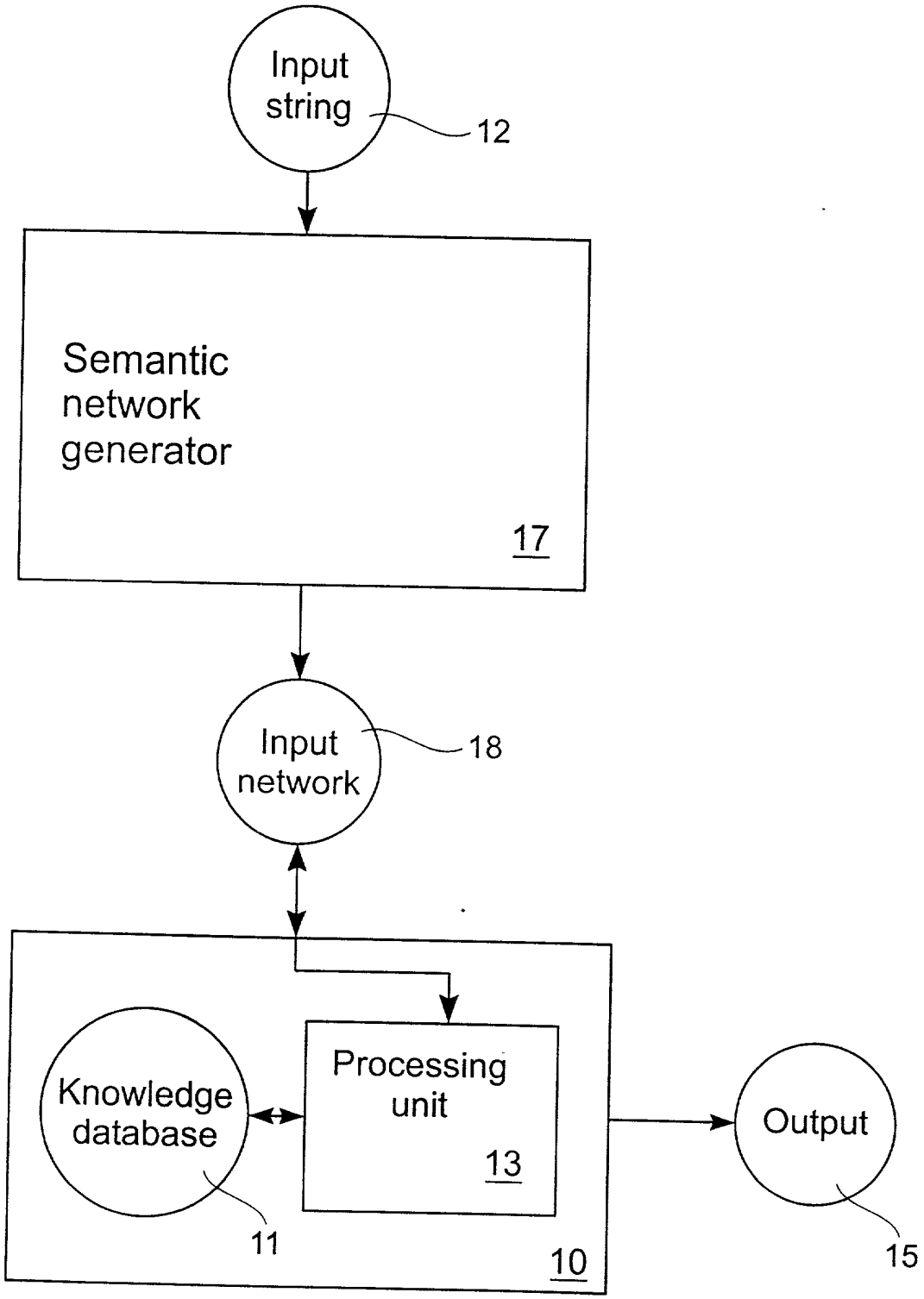

Input string
12
Semantic network generator
17
Input network
18
Knowledge database
11
Processing unit
13
10
Output
15

Fig. 1

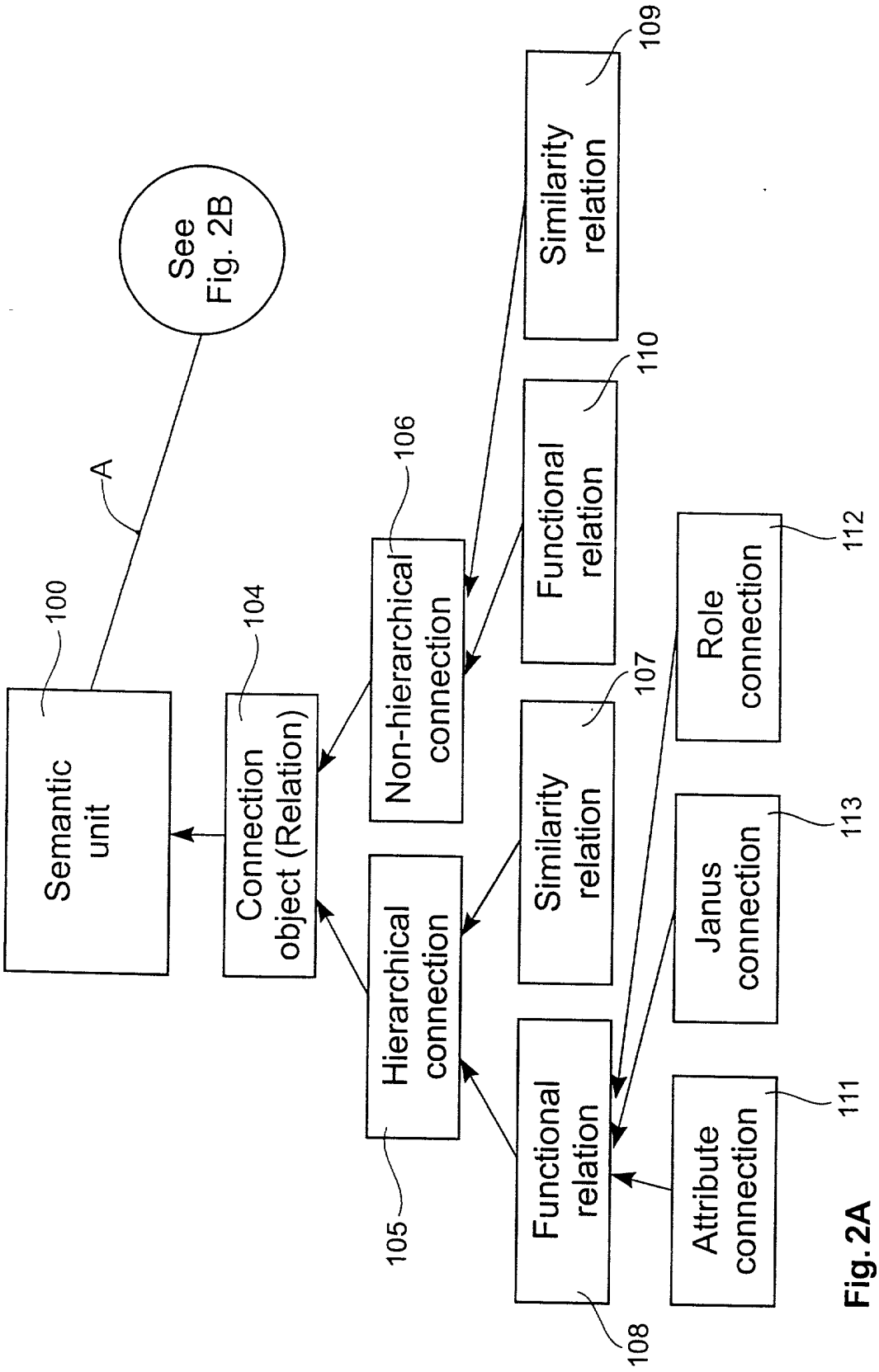

See Fig. 2B
A
Semantic unit
100
Connection object (Relation)
104
Hierarchical connection
105
Non-hierarchical connection
106
Similarity relation
107
Functional relation
108
Similarity relation
109
Functional relation
110
Attribute connection
111
Role connection
112
Janus connection
113

Fig. 2A

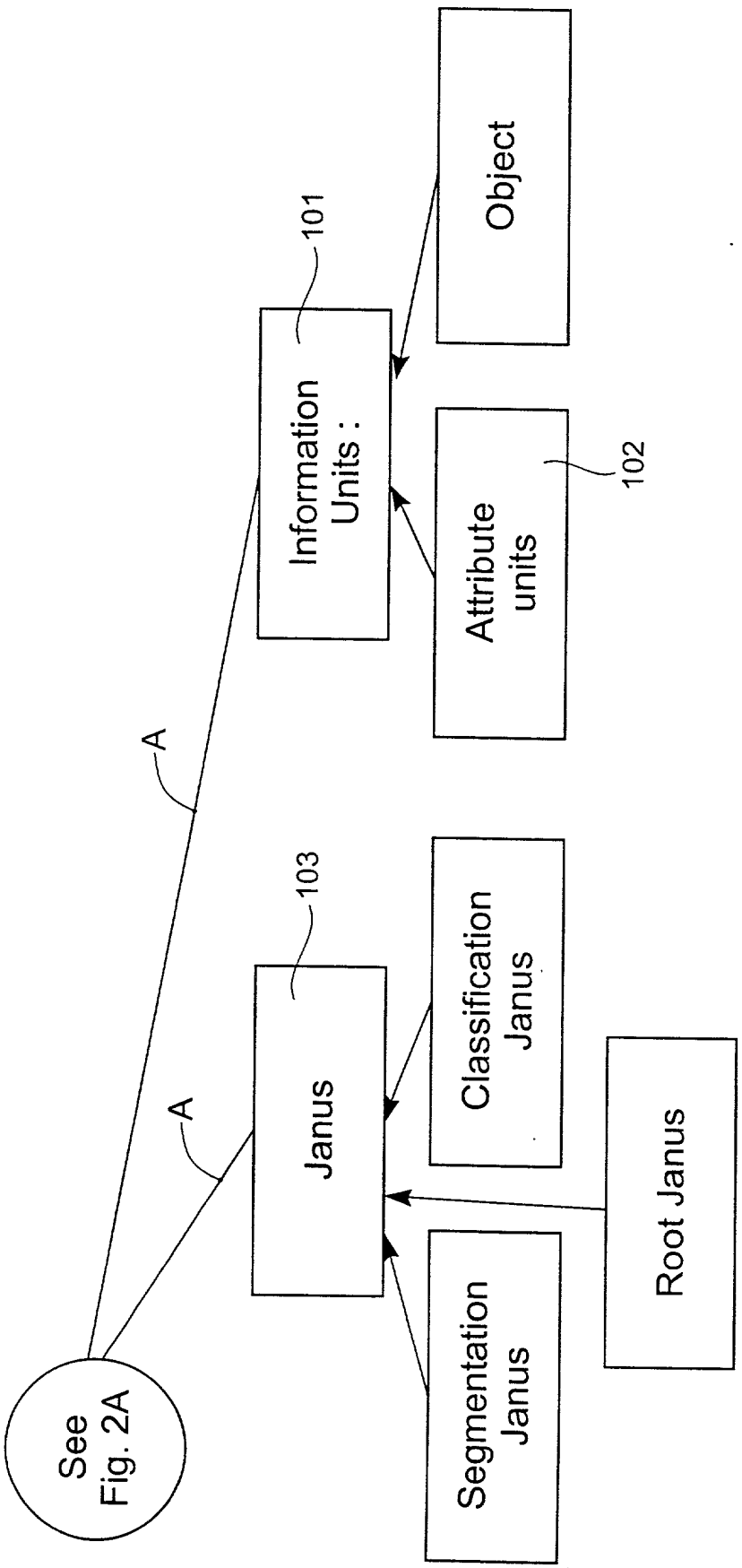

See Fig. 2A
A
A
Janus
103
Information Units :
101
Attribute units
102
Object
Classification Janus
Root Janus
Segmentation Janus

Fig. 2B

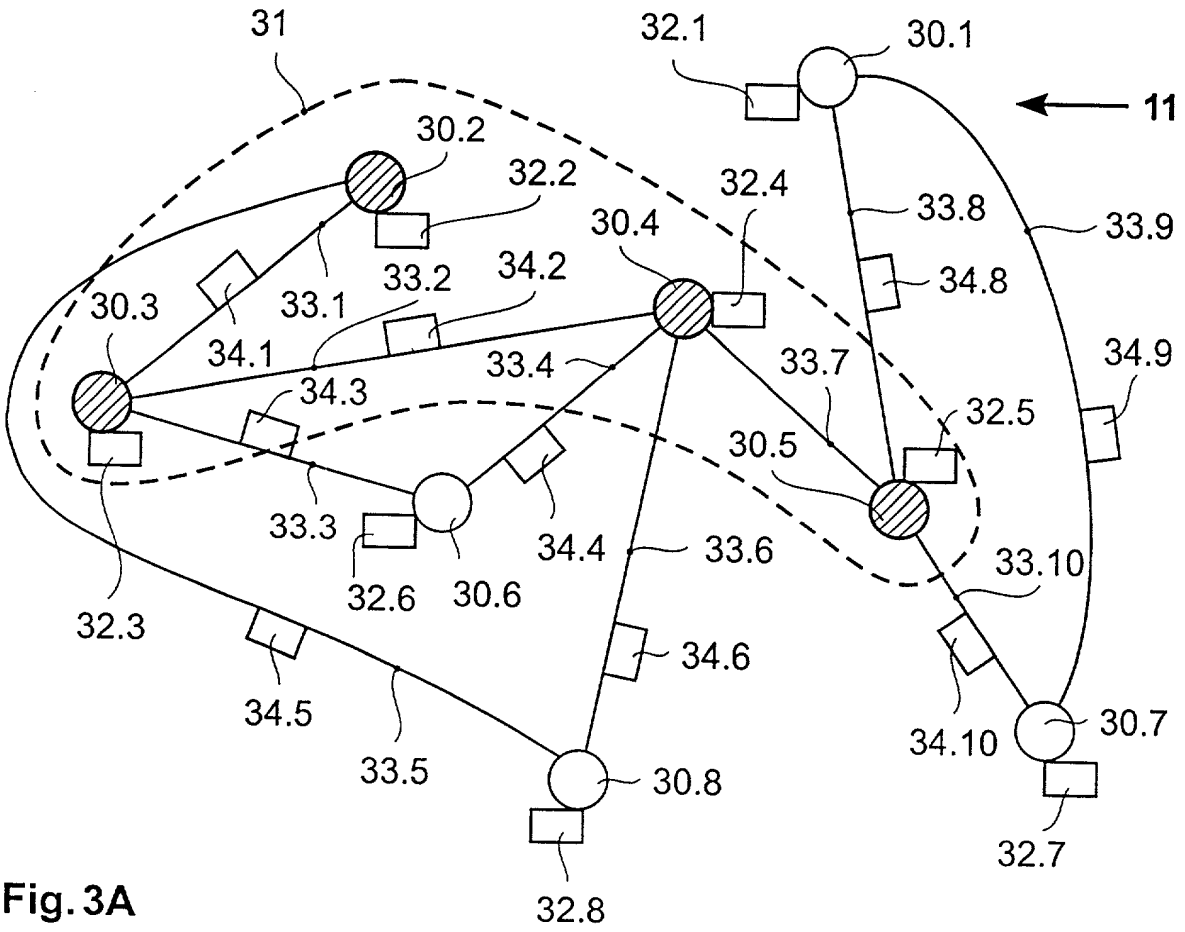
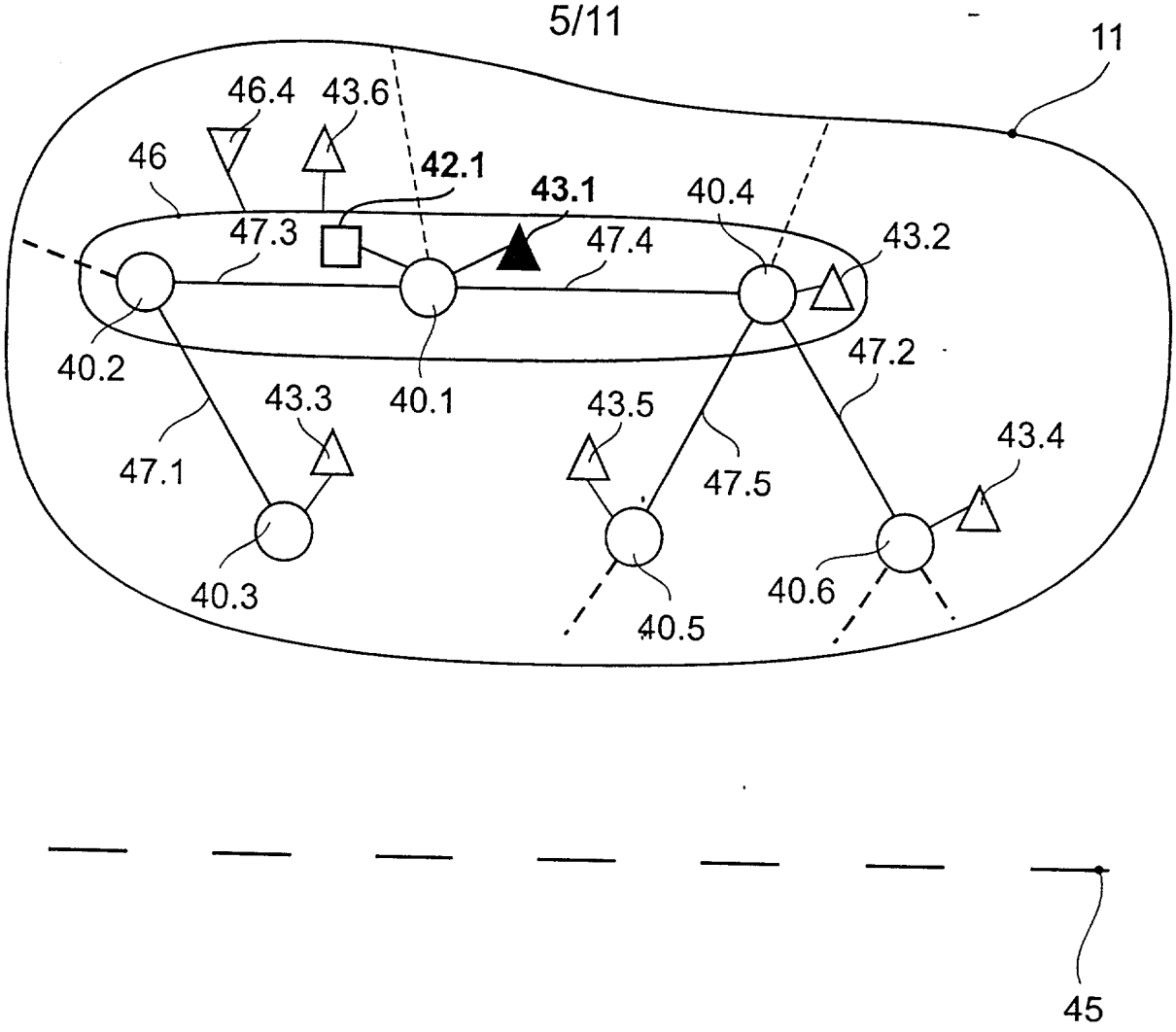


Fig. 3A

m = 1	m = 2	m = 3
30.2 30.4 30.5 33.1 33.2 33.7 30.3	30.2 30.6 33.1 33.3	30.2 30.6 30.7 33.1 33.3 33.8

32.3

Fig. 3B


11
46.4
43.6
46
42.1
43.1
40.4
47.3
47.4
43.2
40.2
40.1
47.2
43.3
43.5
43.4
47.1
47.5
40.3
40.5
40.6
45

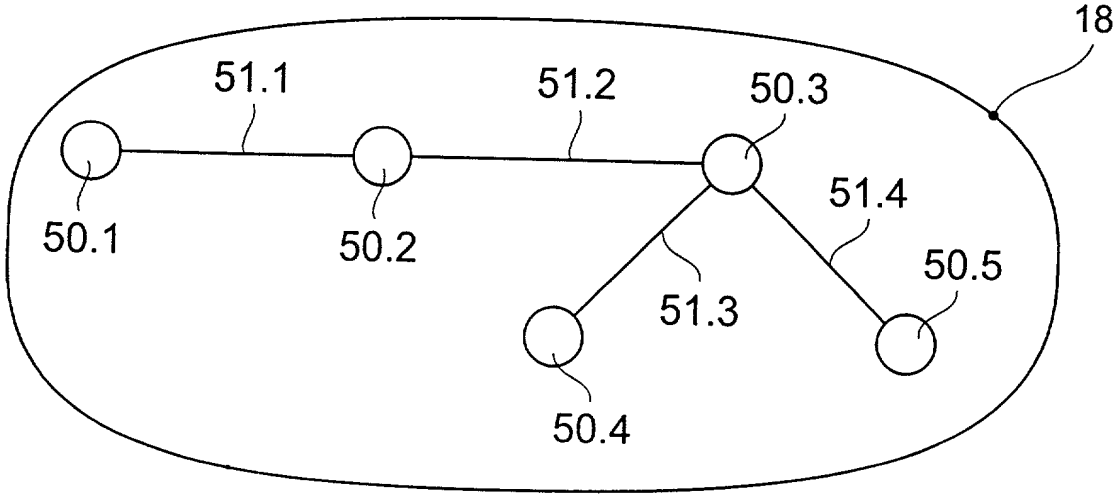

18
51.1
51.2
50.3
51.4
50.1
50.2
50.5
51.3
50.4

Fig. 4A

m = 1	m = 2
40.2	·
40.4	·
47.3	·
47.4	·
46	·

42.1

Fig. 4B

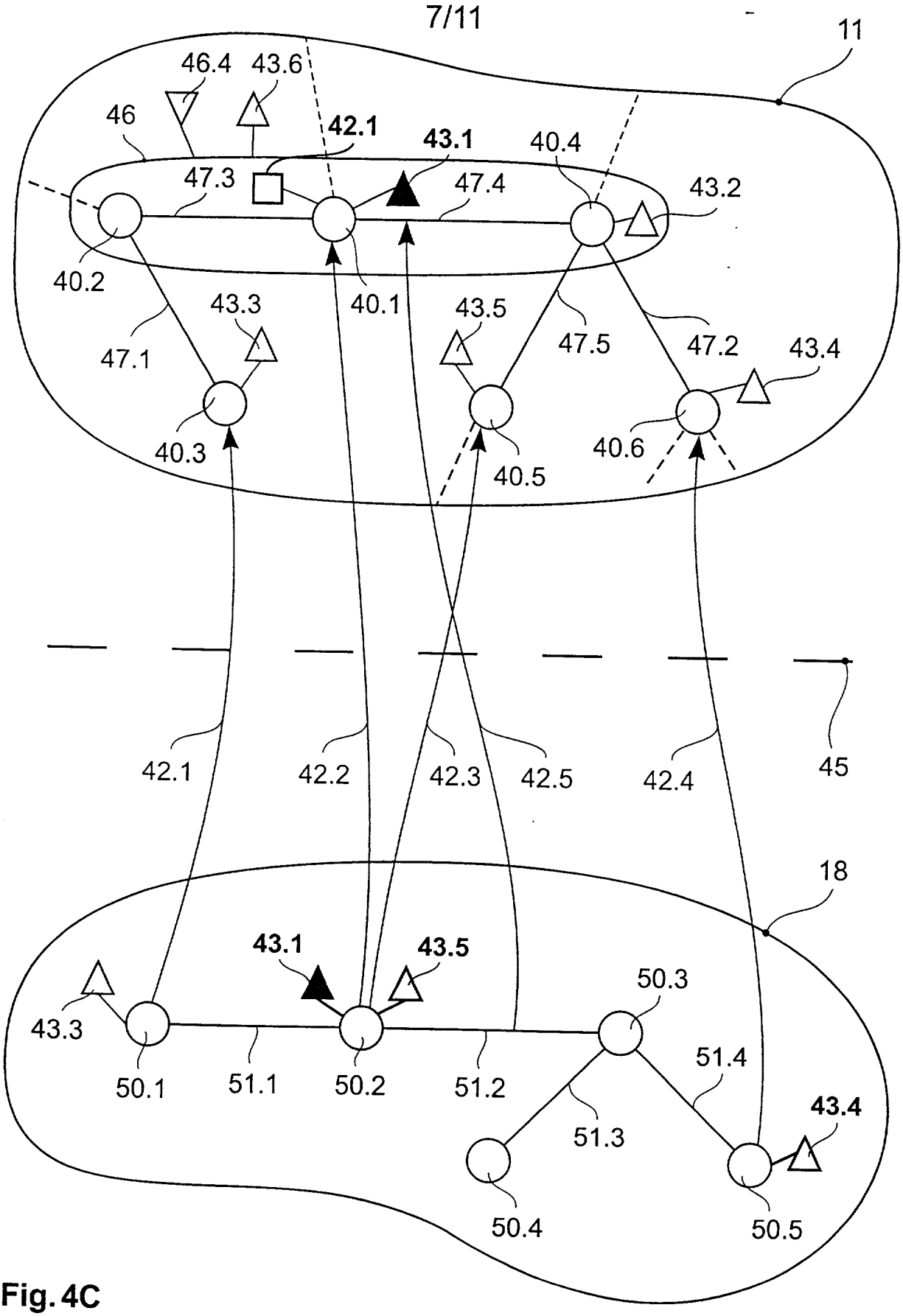

11
46.4
43.6
46
42.1
43.1
40.4
47.3
47.4
43.2
40.2
40.1
43.3
43.5
47.1
47.5
47.2
43.4
40.3
40.5
40.6
42.1
42.2
42.3
42.5
42.4
45
18
43.1
43.5
43.3
50.3
51.4
50.1
51.1
50.2
51.2
51.3
43.4
50.4
50.5

Fig. 4C

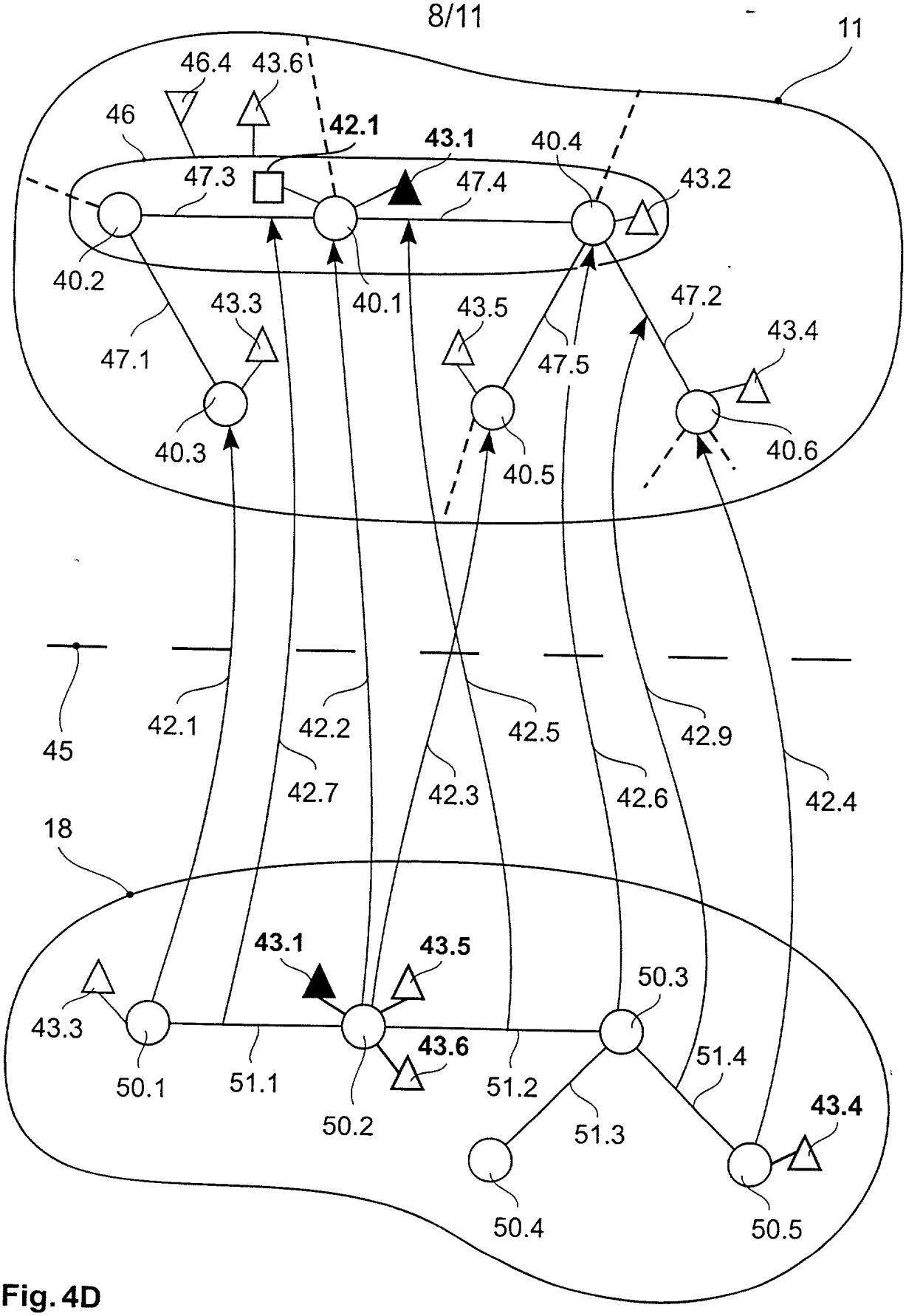

11
46.4
43.6
46
42.1
43.1
40.4
47.3
47.4
43.2
40.2
40.1
43.3
43.5
47.2
47.1
47.5
43.4
40.3
40.5
40.6
45
42.1
42.2
42.5
42.9
42.7
42.3
42.6
42.4
18
43.1
43.5
50.3
43.3
43.6
51.4
50.1
51.1
51.2
43.4
50.2
51.3
50.4
50.5

Fig. 4D

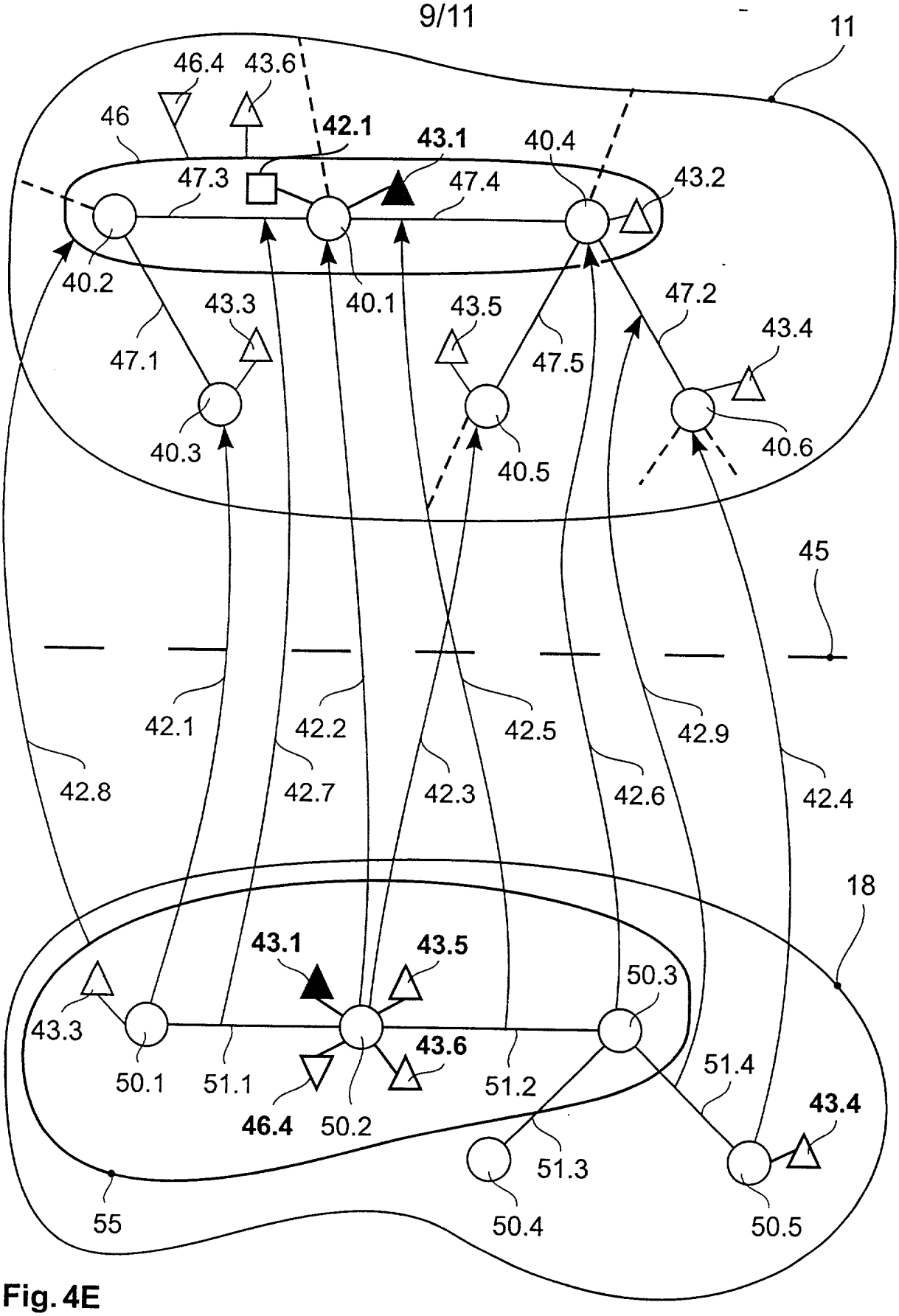

11
46.4
43.6
46
42.1
43.1
40.4
47.3
47.4
43.2
40.2
40.1
43.3
43.5
47.2
43.4
47.1
47.5
40.3
40.5
40.6
45
42.1
42.2
42.5
42.9
42.8
42.7
42.3
42.6
42.4
18
43.1
43.5
50.3
43.3
43.6
50.1
51.1
51.2
51.4
46.4
50.2
43.4
51.3
55
50.4
50.5

Fig. 4E

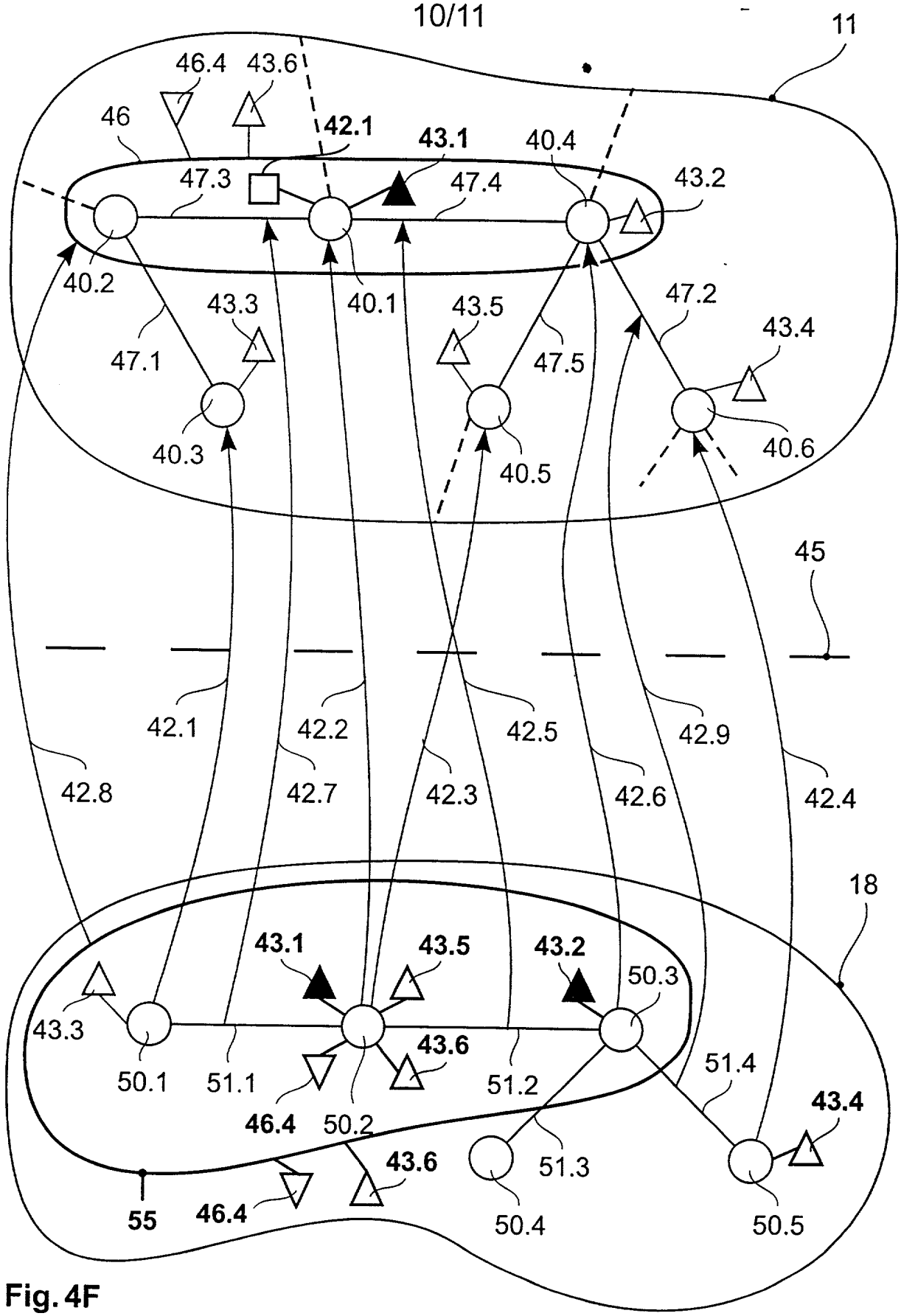

11
46.4
43.6
46
42.1
43.1
40.4
47.3
47.4
43.2
40.2
40.1
43.3
43.5
47.2
43.4
47.1
47.5
40.3
40.5
40.6
45
42.1
42.2
42.5
42.9
42.8
42.7
42.3
42.6
42.4
18
43.1
43.5
43.2
50.3
43.3
43.6
50.1
51.1
51.2
51.4
43.4
46.4
50.2
43.6
51.3
55
46.4
50.4
50.5

Fig. 4F

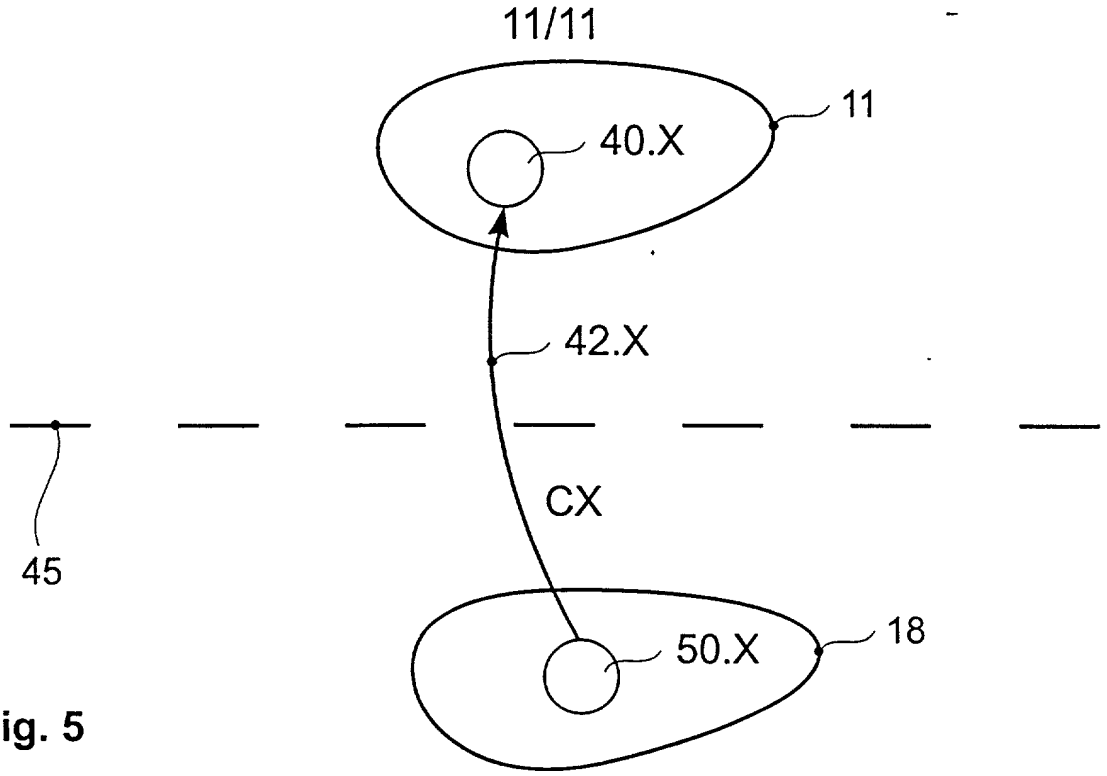

11
40.X
42.X
CX
45
50.X
18

Fig. 5

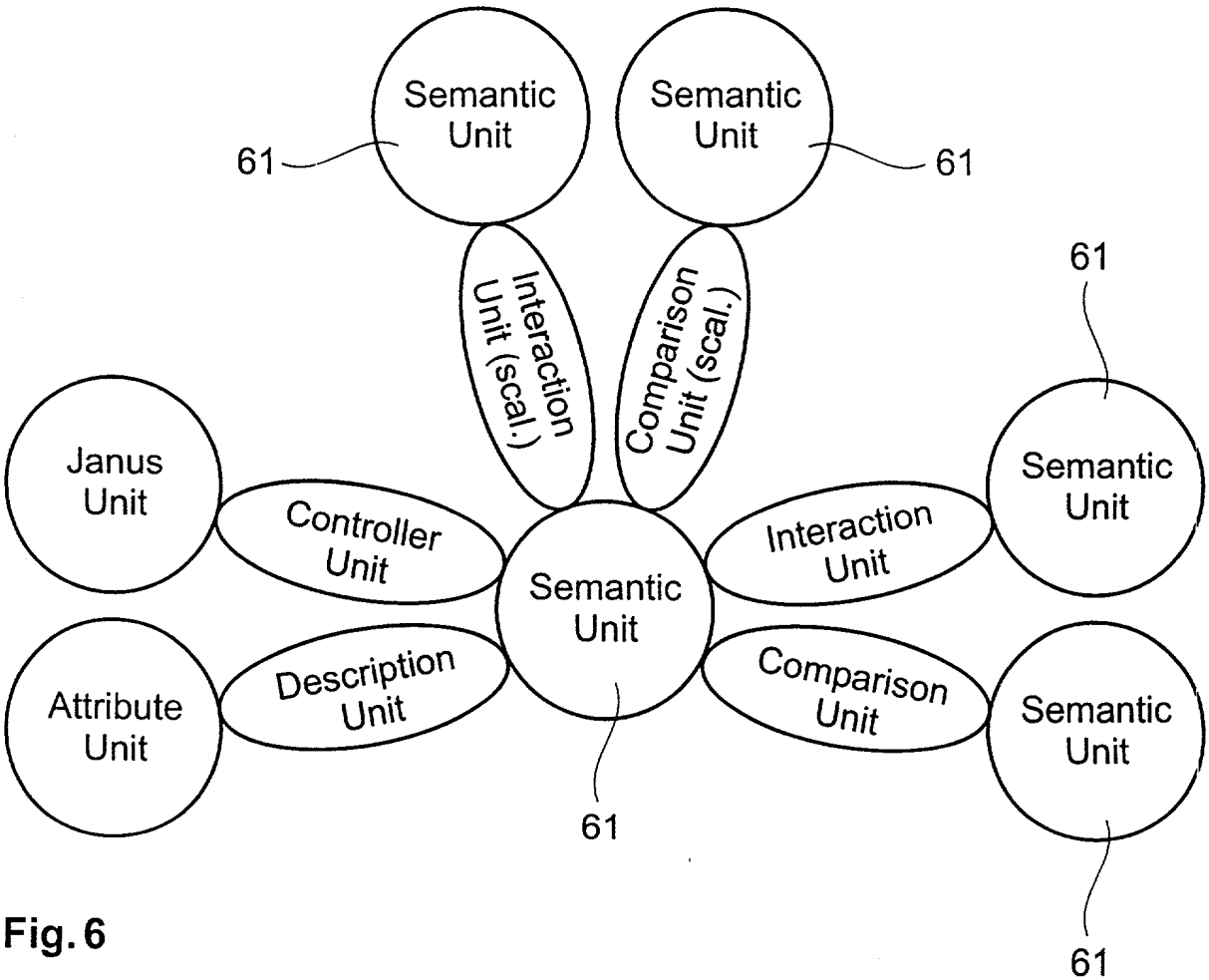

Semantic Unit
Semantic Unit
61
61
Interaction Unit (scal.)
Comparison Unit (scal.)
61
Janus Unit
Controller Unit
Semantic Unit
Interaction Unit
Semantic Unit
Attribute Unit
Description Unit
Comparison Unit
Semantic Unit
61
61

Fig. 6